On vocalism in Moroccan Arabic dialects*

Jordi Aguadé
University of Cádiz

1. During the Second World War a famous American linguist – Zellig S. Harris (with the collaboration of Charles A. Ferguson) – published an article about Moroccan phonology entitled *The phonemes of Moroccan Arabic*[1]. Some years later, the French dialectologist Jean Cantineau wrote a crushing review of this article listing all errors and misunderstandings of the authors, especially those concerning vocalism[2]. Both scholars justified themselves arguing that during the war in New York they could not find more than a couple of Moroccan native speakers (a lady from Casablanca and her husband from Berrechid)[3].

2.1. This anecdote is representative of the situation of research on Moroccan dialects (Arabic or Berber): an important part of the publications on this subject has been written for practical purposes (for instance, handbooks meant for French, Spanish or German colonial policy[4], cultural and technical cooperation with Western countries, tourism, etc.).

That means that accurate philological descriptions were not the main goal of such studies[5]. As a result of this peculiarity, until few decades ago we did almost not dispose of detailed and precise descriptions of Moroccan dialects[6]: a really

* This article is part of the results of the research project FFI2008-04648-C02-01 from the Spanish Ministry of Science.

1 His article appeared in the year 1942: on 8 November 1942 the Allied Western Task Force of the Operation Torch landed in the outskirts of Casablanca.

2 Cf. p. 242: "Ces erreurs portent surtout sur la quantité des voyelles, des longues étant notées comme brèves, sur leur timbre, sur l'insertion de voyelles de transition, sur des confusions de consonnes (*q* et *k*, *ḥ* et *ḥ*, etc.)". According to Harris, Moroccan Arabic would present a vocalic system of four short vowels (/i/, /u/, /a/, /ə/) and four long vowels (/i:/, /u:/, /æ:/, /a:/).

3 Charles A. Ferguson wrote to Cantineau arguing that the aim of their article was to help American soldiers to learn Moroccan Arabic and that they had only very few time to prepare it (cf. Cantineau [1960]: 241).

4 There is an important number of interesting German publications concerning dialects (Berber an Arabic) in Morocco prior to the First World War; see for instance Fischer (1907) and (1918); Kampffmeyer (1899) and (1912).

5 However, this does not mean that the scientific value of such writings is always low; during the French colonial period, for instance, excellent studies have been published.

6 I cannot agree with Dominique Caubet when she says; "Moroccan Arabic is a well-known dialect described in numerous descriptions in the first half of the 20th century and studied in a number of recent publications" (*EALL* [2005-2009]: 274).

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

surprising fact if we take into account that the first grammar of a Moroccan Arabic dialect was published 1800 by Dombay in Vienna[7], i.e., more than two centuries ago.

2.2. Some of the books published during the Protectorate contain text compilations – often with their translations and useful glossaries – but without a detailed description of the dialect concerned: this is the case, for instance, of three books by William Marçais[8], Louis Brunot[9] or Victorien Loubignac[10], which are representative publications of this type[11]. In such publications, it is hard to find out accurately the characteristic features of the dialect; it is necessary to deduce them by analyzing the whole texts (which unfortunately does not always have the data searched for) [12].

2.3. In other cases, we have very good and accurate descriptions (from a linguistic point of view) of Moroccan Arabic but they do not correspond to a specific dialect. This is the case of the well-known book published by Richard Slade Harrell[13], a grammar which, according to what its author says in the foreword, reproduces basically the language of educated speakers from Fez, Rabat and Casablanca – a rather heterogeneous dialectal mixture because Fez and (old) Rabat have dialects of Pre-Hilalian type, whereas Casablanca has a Hilalian one (on the other hand, in this grammar the Arabic dialect spoken in Casablanca is conspicuous by its absence).

2.4. A peculiar case is Georges S. Colin's *Chréstomathie:* this extensive – and useful – anthology contains a collection of texts about different traditional topics in Moroccan Arabic and from several places – very interesting from a philological and ethnographic point of view as well.

But for dialectological research his *Chréstomathie* has an important handicap because Colin – as he himself explains in the foreword[14] – did modify the language of the original stories (which of course have been told to him in different dialects, according to the origins of his informants), adapting it to "the Middle Arabic dialect spoken in the important cities in the North; Rabat, Sale, Meknes and Fez". In other words, he 'normalized' the texts, creating thus his own Moroccan dialectal

---

7 Cf. Dombay (1800).

8 Cf. Marçais (1911).

9 Cf. Brunot (1931) and (1952).

10 Cf. Loubignac (1952).

11 Another example is Kampffmeyer (1912) (published prior to the Protectorate) whose book is the solely source we have about the origins of the Arabic dialect spoken in Casablanca.

12 Concerning Loubignac, see my description (based on his book) of the main features of the Zʿīr dialect, (1998): 141-150.

13 Harrell (1962).

14 Cf. Colin (1955): viii.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

koine, and thereby dropping all characteristic features of the dialects spoken by his three main informants (natives of Marrakech, Rabat and Tangiers)[15].

Obviously, such a collection of dialectal texts, due to its peculiar nature, is not a reliable source for the study of Moroccan dialects. To use it to analyze the vocalism of Moroccan Arabic – as it happened in some occasions (probably ignoring Colin's 'normalization') – is thus not advisable.

3.1. In the last two decades, research on Moroccan dialects increased in a very significant way. Being Morocco a Pro-Western country, open to tourism and with millions of visitors each year, it is not surprising that the land has become a favorite research subject for American and European scholars; together with Tunisia, Morocco is today one of the few Arabic countries in which scientific research, especially in the field of Arabic dialectology, is still possible without danger.

3.2. A common characteristic of an important part of modern studies is that they are made by linguists or philologist often not acquainted with Arabic dialectology, Eastern Arabic dialects or Arabic/ Semitic philology. Thus, Moroccan is regarded as an isolated language, and the features, which Moroccan dialects share with Eastern ones, are not considered at all.

These studies are often of very theoretical nature[16] and show a surprising ignorance concerning the existing bibliography (especially older publications): this is especially the case in studies written by North African students, which made their PhDs in linguistics in American or European universities.

On the other hand, it is necessary to underline here that descriptions of Moroccan vocalism sometimes extract general conclusions based on data from only one dialect. Morocco has an extended variety of dialects (an important part of which has never been studied): it is of course dangerous to postulate general rules from such a small base. As we will later see, matters are more complex than it has generally been thought.

3.3. Nowadays, a new kind of researchers has appeared in the field of North African dialectology: the specialists in acoustic phonetics. In this case, to ignore research done by Arabists seems to be a common trend in their publications. Results of such researches are sometimes quite poor: for instance, to conclude that vowels in a Moroccan dialect are more central than in a Jordan one[17] is truly not an exciting discovery.

---

15 The book has also texts from other regions (Warġa, etc.).

16 At times it seems that the dialect serves only to reaffirm some linguistic theories. Accurate transcriptions of Moroccan Arabic are completely neglected.

17 Cf. Al-Tamimi & Barkat-Defradas (2003).

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

In addition, in other cases serious methodological objections can be raised: in two papers, for instance, a comparison concerning vocalic length is made between a Moroccan dialect and Modern Standard Arabic[18] – since nobody has Modern Standard Arabic as mother tongue, such a comparison is worthless.

4. In the following lines I will give a description of vocalism in Moroccan dialects based on reliable previous studies and on my own field research in Morocco. The conclusions in my paper are thus the results of data from different Moroccan dialects (Hilalian and pre-Hilalian, urban and rural), collected by several scholars over a long period of time of more than fifty years.

5.1. In general Moroccan dialects present a vocalic system based on five vowels, three long or medium and two short or ultra-short[19]:

/ā/ /ī/ /ū/

/ə/ /ŭ/

5.2. This system is valid, for instance, for towns like Casablanca, Fez, Marrakech or Skūra[20]. Examples of minimal pairs for the short vowels are (examples from Casablanca)[21]:

ḥəbb "he kissed" ≠ *ḥŭbb* "love"
ḥəkk "he rubbed" ≠ *ḥŭkk* "small box"
mədd "hold out!" ≠ *mŭdd* "container used for measuring grain"
nəqṛa "I will read" ≠ *nŭqṛa* "silver"
ḥəṛṛ "more spicy than" ≠ *ḥŭṛṛ* "free".

---

[18] Embarki (2004): 1 ("En ASC [= arabe standard contemporain] la quantité vocalique est phonologique, le rapport de durée voyelle longue/ voyelle brève varie entre 2 et 3.1), and Embarki (2007): 220: "In MSA, the long/ short vowel ratio varies between 2.0 and 3.1".

[19] See, for instance, Caubet (2005-2009): 275; Aguadé (2005-2009): 288; Aguadé (2008): 290-292. The phonetic realization of /ə/ depends very much on the consonantal environment: [ə] or [e] in plain contexts, [a] and [ɑ] in the context of pharyngeals and pharyngealized consonants, [u] or [ʊ] in the context of /w/, [i], [ɪ] or [e] in the context of /y/. /ŭ/ has the allophones [u] in plain contexts, [ʊ] or [o] in contact with pharyngeals and pharyngealized consonants. Concerning the long vowels, /ā/ is realized [æː] in plain contexts, [aː] and [ɑː] in contact with pharyngeals and pharyngealized consonants; /ī/ is realized [iː] in plain contexts, [ɪː] or [eː] in contact with pharyngeals and pharyngealized consonants; /ū/ is realized [uː] in plain contexts, [oː] or [ʊː] in contact with pharyngeals and pharyngealized consonants.

[20] It is not exact that Marrakech and Southern dialects "only have /ə/, i.e. four vocalic phonemes" (Caubet [2005-2009]). For instance, an opposition between /ə/ and /ŭ/ in cases like *ḥəbb* "he loved" ≠ *ḥŭbb* "love" exists in all dialects.

[21] Cf. Aguadé (2003a): 91, 94.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

Some speakers differentiate between *nəṣṣ* "text" ≠ *nŭṣṣ* "half" and *xəḍṛa* "green (f.)" ≠ *xŭḍṛa* "vegetable",

5.3. Due to the growing influence of standard Arabic trough the modern media and generalization of schooling in the country, it is probably that in the future this list of minimal pairs will increase.

5.4. Quantity opposition is not very functional in Moroccan dialects due to the general loss of vowels[22]. However, minimal pairs can easily be found, as following examples show[23]:

/ə/ (= [a]) ≠ /ā/:

xəmsa (= [xamsa]) "five" ≠ *xāmsa* (= [xaːmsa]) "fifth (f.)"

ḥməq (= [ħmɑq]) "crazy" ≠ *ḥmāq* (= [ħmɑːq]) "he became crazy"

kḥəl (= [kħal]) "black" ≠ *kḥāl* (= [kħaːl]) "he turned black"

ḥməṛ (= [ħmɑʁ]) "red" ≠ *ḥmāṛ* (= [ħmɑːʁ]) "donkey".

/ŭ/ ≠ /ū/:

dxŭl "enter!" ≠ *dxūl* "entrance".

5.5. The fact that occasionally long vowels are phonetically realized as short (depending on the word inflection, the structure of the sentence and stress[24]) is a general feature of Arabic dialects[25].

6.1. As we have seen, the majority of the Moroccan dialects present a system based on three long and two short vowels. However, in North-eastern Morocco, between Debdou and Oujda, Peter Behnstedt found dialects with three long and three short vowels[26]:

---

22 On the existence of quantity opposition in Moroccan dialects, cf. Behnstedt & Benabbou (2002): 62; Aguadé (2003a): 97-97; Aguadé (2005-2009): 289; Caubet (2005-2009): 275-276; Harrell (1962): 10-11.

23 Cf. Aguadé (2003a): 95-97, and Behnstedt & Benabbou (2002): 62-64.

24 Stress is never a distinctive feature in Moroccan dialects; stress in a phrase is absolutely free (as a result of the instability of short vowels cf. § **8.1**); cf. Aguadé (2005-2009): 289.

25 Cf. Cantineau (1960): 95-96. Concerning shortening of long vowels in Tetuan, cf. Singer (1958a): 107-108 (transcriptions 113ff.) and (1958b). In Tangiers shortening of long vowels in closed syllables is quite common (unpublished data of my own): *kărmūs* > *kărmŭs* "figs" (but: *kărmūsa* "a fig").

26 Classified as types B and C by Behnstedt & Benabbou (2002): 17-19.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

/ā/	/ī/	/ū/
/ă/	/ə/	/ŭ/

Examples of minimal pairs for the short vowels are:

/ă/ ≠ /ə/: *ḥănna* "grandmother" ≠ *ḥənna* "henna", *ḥăžž* "he made the pilgrimage" ≠ *ḥəžž* "make the pilgrimage!".

/ă/ ≠ /ŭ/: *dăgg* "he crushed" ≠ *dŭgg* "crush!", *ṛăšš* "he sprinkled" ≠ *ṛŭšš* "sprinkle!".

/ə/ ≠ /ŭ/: *skət* "he kept quiet" ≠ *skŭt* "keep quiet!", *xrəž* "he went out" ≠ *xrŭž* "go out!".

6.2. In some Northern dialects an opposition /ă/ ≠ /ŭ/ serves to differentiate between perfect and imperfect. In Chauen, for instance, we find *šădd* "he closed" ≠ *šŭdd* "close!"[27].

However, such an opposition is not a general feature of all Moroccan dialects (as it has been sometimes said); as far as I can see, it is limited to Northern dialects[28].

6.3. In Northern dialects (Anjra for instance) there seems to exist a vowel [i] (which sometimes alternates with [ə]) in words like *bĭnt ~ bənt* "girl", *žĭbna ~ žəbna* "we brought", *sādĭs* "sixth", *ṭĭfl* "child", *sĭtta* "six", *mĭftāḥ* "key"[29]. Diachronically this vowel corresponds to the [i] that these words have in Classical Arabic: however, it seems to be merely an allophone of /ə/ since no examples of minimal pairs of an opposition /ə/ ≠ /ĭ/ are known.

7. The short diphthongs **-aw* and **-ay* of Classical Arabic are generally preserved in Northern and Jbala dialects as well as in some Hilalian dialects (ZʕĪr, for instance). Examples from Anjra are[30]: **yawm > yawm* "day", **nawba > nawba* "time, turn", **lawḥa > lawḥa* "wooden tablet".

In most Moroccan dialects (for instance Rabat, Casablanca, Fez, Marrakech, Skura, etc.), though, such diphthongs are monophthongized.

8.1. A characteristic feature of Moroccan dialects is the instability of short vowels.

---

27 Cf. Moscoso (2003): 29-30.

28 Cf. Aguadé (2003b): 301-307.

29 Cf. Vicente (2000): 31.

30 Vicente (2000): 34.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

Common to all Moroccan dialects is that short vowels do not occur in open syllables or word-finally[31]: **daxaltu* > *dxəlt* "I entered", **fahima* > *fhəm* "he understood", **madīna* > *mdīna* "town", **ṭarīq* > *ṭrīq* "way, path".

In order to avoid the occurrence of a short vowel in an open syllable, vowel elision or metathesis takes place: *ṣāfəṛ* "he traveled" > *ṣāfṛu* "they traveled", *kəmməl* "he finished" > *kəmmlu* "they finished", *ktəf* "shoulder" > *kətfi* "my shoulder" (but *ktāf* "shoulders" > *ktāfi* "my shoulders"), *šṛəb* "he drank" > *šəṛbu* "they drank"[32].

So far as we know, this feature seems to be a general rule to all Moroccan dialects, either Hilalian or pre-Hilalian, urban or rural[33].

8.2. Unfortunately, it is common that scholars ignore this fundamental rule when transcribing Moroccan dialects and aberrant transcriptions like *kətəb* (= *ktəb* "he wrote"), *tofaḥ* (= *təffāḥ* "apples"), *bəḥal* (= *bḥāl* "like"), *skəno* (= *səknu* "they dwelled"), *ṣəbəṛo* (= *ṣəbṛu* "be patient [pl.]!") etc., are quite frequent.

9. According to some scholars, the vocalic system mentioned above § **4.1.-4.2.** would have only a short phoneme /ə/, being /ŭ/ merely a labialization of /ə/[34]. It is true that in many cases /ə/ (especially in contact with /ġ/, /x/, /q/, /k/, /g/, /m, ṃ/, /b, ḅ/, /f, ḟ/) has an allophone /ŭ/ which can be explained as a labialization of /ə/. This is the case, for instance, in the Arabic dialect of Casablanca, where we find *gŭlt* "I have said", *kŭnt* "I was", *dxŭl* "enter!", etc. in which the vowel /ŭ/ can be explained as labialization (= *g^{w}əlt, k^{w}ənt, dx^{w}əl*)[35]. But examples like *ḥəbb* ≠ *ḥŭbb, ḥəkk* ≠ *ḥŭkk, mədd* ≠ *mŭdd, nəqṛa* ≠ *nŭqṛa, ḥəṛṛ* ≠ *ḥŭṛṛ, nəṣṣ* ≠ *nŭṣṣ* and *xəḍṛa* ≠ *xŭḍṛa* (cf. above § **4.2**) show that in such cases the vowel /ŭ/ is a full phoneme and is used for semantic differentiation (it is too the vowel of the Classical Arabic form of almost all these words)[36].

10. It is usual to explain the loss of short vowels in North African dialects as influence of Berber substratum[37]. Since Berber was the language spoken in North

---

31 Cf. Harrell (1962): 10-11; Heath (2002): 201-205; Marçais (1977): 31.

32 The only exception to this rule seem to be geminated verbs in the II form which insert a very short vowel */ə/* to mark gemination of the medial consonant. For instance: *xəmməm* "he thought" > *xəmmᵊmu* "they thought".

33 The exception being of course hassaniyya speakers in Southern Morocco.

34 Voigt (1996).

35 This pronunciation alternates with *gəlt, kənt, dxəl* (sometimes by the same speaker and in the same phrase).

36 On this issue cf. Aguadé (2003a): 95-97, and Behnstedt & Benabbou (2002): 62-63 (and note 30).

37 Concerning the importance of Berber substratum in North African dialects (especially Moroccan ones) scholars have opposite views, ranging from a general assumption of Berber influence to a completely denial; cf. for instance Diem (1979): 52-56 (with a summary of different opinions concerning the influence of Berber substratum in Moroccan dialects). See also Aguadé (2005-2009): 293 and Grand'Henry (1972): 33.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

Africa prior to the Arabic conquests[38] (and it is still spoken in large areas from Libya to Mauritania until today) substratum influence in this case seems very plausible and convincingly[39]. However, two serious objections to this theory can be made. First, if the loss of short vowels is due to Berber influence, which is thus the same substratum in the whole area, how can we explain the significant differences existing between Arabic dialects in North Africa?

Hassaniyya, for instance, presents short vowels in open syllables[40]. This is also the case in Libyan, and some Tunisian and Eastern Algerian dialects[41]. Only Moroccan and Western Algerian dialects present a generalized loss of short vowels in open syllables.

And second, in this context it is not out of place to take into account that the trend to drop out short vowels – especially in open syllables – is a common feature of almost all Arabic dialects[42].

All these facts allows us (in my view) to postulate another, more nuanced opinion; it is plausible to assume that the loss of short vowels is not only due to the influence of Berber substratum but also follows a general trend which exists in other Arabic dialects.

Biographical references

Abu-Haidar, F. (1979): *A study of the spoken Arabic of Baskinta.* James G. Forlong Fund, Leiden – London: Brill.

Aguadé, J. (1998): "Un dialecte maʕqilien: le parler des Zʕīr au Maroc", in Aguadé, J., Cressier, P. & Vicente, Á., eds. (1998) : *Peuplement et arabisation au Maghreb Occidental.* Actes réunis et préparés par Jordi Aguadé, Patrice Cressier et Ángeles Vicente. Casa de Velázquez / Universidad de Zaragoza. Área de Estudios Árabes e Islámicos. Madrid / Zaragoza 1998, 141-150.

[38] Of course together with Latin, language spoken manly in the most important North African towns.

[39] It is a common place to say that the loss of short vowels increases from East to West: in fact, it seems that there are mainly differences from North to South.

[40] See Cohen (1963): 54ff.; Ould Mohamed-Baba (2008): 320. It is important to underline here that the arabization of Mauritania took place quite late (in comparison with Morocco); the Banū Hilāl tribes arrived there in the late Middle Ages, the influence of the substratum is thus more recent than in the main Moroccan towns.

[41] Cf. Singer (1980): 249; Grand'Henry (1976): 34-35; Marçais (1977): 32-34; Marçais (2001): 158-160; Owens (1984): 11-12 and 27ff.

[42] Cf. Cantineau (1960): 108-110; Cohen (1964): 53. In Lebanese and Syrian dialects short vowels (especially /ă/) in unstressed open syllables are elided: cf. Behnstedt (2008): 157; Behnstedt (1994): II, 27; Procházka (2002): 30-31; Abu-Haidar (1979): 26-27. In Cairo short vowels are also elided in unstressed open syllables: cf. Woidich (2006): 30.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

— (2003a): "Estudio descriptivo y comparativo de los fonemas del árabe dialectal marroquí", *EDNA* 7 (2003), 59-109.

— (2003b): "Notes on the Arabic dialect of Casablanca", in *AIDA 5th Conference. Proceedings.* Edited by I. Ferrando and J. J. Sánchez Sandoval, Cádiz : Universidad de Cádiz, 301-308.

— (2005-2009): "Morocco", in *EALL* (2005-2009): III, 287-297.

— (2008): "Árabe marroquí", in F. Corriente & Á. Vicente, *Manual de dialectología neoárabe*, Zaragoza: Instituto de Estudios Islámicos y del Oriente Próximo, 281-310.

— & Elyaacoubi, M. (1995): *El dialecto árabe de Skūra (Marruecos).* Consejo Superior de Investigaciones Científicas, Madrid 1995.

Al-Tamimi, J. & Barkat-Defradas, M. (2003); "Inter-dialectal and inter-individual variability in production and perception. A preliminary study in Jordanian and Moroccan Arabic", in *AIDA 5th Conference. Proceedings.* Edited by I. Ferrando & J. J. Sánchez Sandoval, Cádiz: Universidad de Cádiz, 171-186.

Behnstedt, P. (1994): *Der arabische Dialekt von Soukhne (Syrien)*, «Semitica Viva» 15, 2 vols., Wiesbaden: Harrassowitz.

— (2008): "Árabe levantino", in F. Corriente & Á. Vicente, eds. (2008): *Manual de dialectología neoárabe*, Zaragoza: Instituto de Estudios Islámicos y del Oriente Próximo, 151-184.

— & Benabbou, M. (2002): "Zu den arabischen Dialekten der Gegend von Tāza (Nordmarokko)", in W. Arnold & H. Bobzin, eds. (2002): *"Sprich doch mit deinen Knechten aramäisch, wir verstehen es". 60 Beiträge zur Semitistik. Festschrift für Otto Jastrow zum 60. Geburtstag*, Wiesbaden: Harrassowitz, 53-72.

Brunot, L. (1931): *Textes arabes de Rabat. I, Textes transcription et traduction annotée.* Publications de l'Institut des Hautes Études Marocaines, tome 20, Paris: Librairie orientaliste Paul Geuthner.

— (1952): *Textes arabes de Rabat. II, Glossaire.* Publications de l'Institut des Hautes Études Marocaines, tome 49, Paris: Librairie orientaliste Paul Geuthner.

Cantineau, J. (1960): *Cours de phonétique arabe. Suivi de notions générales de phonetique et phonologie*, Paris.

— (1960): "Réflexions sur la phonologie de l'arabe marocain", in Cantineau, J. (1960): *Études de linguistique arabe*, Paris, 240-255 [first published in *Hespéris* 37 (1950), 193-207].

Caubet, D. (1993): *L'arabe marocain. Tome 1: phonologie et morphosyntaxe. Tome 2: syntaxe et catégories grammaticales, textes.* Études chamito-sémitiques. Langues et littératures orales, Paris – Louvain: Peeters.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

— (2005-2009): "Moroccan Arabic", in *EALL* (2005-2009): III, 273-286.

Cohen, D. (1963): *Le dialecte arabe ḥassānīya de Mauritanie (parler de la Gebla)*, «Études arabes et islamiques. Études et documents» 5, Paris.

— (1964): *Le parler arabe des Juifs de Tunis: textes et documents linguistiques et ethnographiques*, «Études juives» 7, Paris – La Haye.

Colin, G. S. (1955): *Chréstomathie marocaine. Textes citadins en transcription latine*, Paris: Maisonneuve.

Diem, W. (1979): "Studien zur Frage des Substrats im Arabischen", *Der Islam* 56, 12-80.

Dombay, F. von (1800): *Grammatica linguae Mauro-Arabicae juxta vernaculi idiomatis usum*, Vienna.

Embarki, M. (2004): "Quantité vocalique et nature du lexique en arabe marocain", in *Actes des XXVèmes JEP, 19-22 April*, Fez, 201-204.

— (2007): "Segmental and prosodic aspects of Ksar el Kebir's neo-urban variety", in C. Miller, E. Al-Wer, D. Caubet & J.C.E. Watson, eds. (2007): *Arabic in the city. Issues in dialect contact and language variation*, London: Routledge.

EALL (2005-2009): *Encyclopedia of Arabic language and linguistics.* General editor K. Versteegh. Associate editors M. Eid, A. Elgibali, M. Woidich & A. Zaborski. 5 vols., Leiden-Boston: Brill, 2005-2009.

EDNA: Estudios de dialectología norteafricana y andalusí, vols. 1 ss. Zaragoza, 1996– (free download on: *www.ieiop.es*).

Fischer, A. (1907): "Eine interessante algierisch-marokkanische Genetiv-umschreibung", *ZDMG* 61, 178-185.

— (1918): *Das Liederbuch eines marokkanischen Sängers*, Leipzig: Teubner.

Grand'Henry, J. (1972): *Le parler arabe de Cherchell (Algérie)*, «Publications de l'Institut Orientaliste de Louvain» 5, Louvain: Université Catholique de Louvain.

— (1976): *Les parlers arabes de la région du Mzāb (Sahara Algérien).* , «Studies in Semitic Languages and Linguistics» 5, Leiden.

Harrell, R.S. (1962): *A short reference grammar of Moroccan Arabic*, Washington.

Harris, Z.S. (1942): "The phonemes of Moroccan Arabic", in *Journal of the American Oriental Society* 62:4, 309-318.

Heath, J. (2002): *Jewish and Muslim dialects of Moroccan Arabic*, London: Routledge and Curzon.

Kampffmeyer, G. (1899): "Beiträge zur Dialektologie des Arabischen.1,2: Das marokkanische Präsensprefix *kā-*", *WZKM* 13, 227-250.

— (1912): *Marokkanisch-arabische Gespräche im Dialekt von Casablanca. Mit*

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1

Vergleichung des Dialekts von Tanger, Berlin: Reimer.

Loubignac, V. (1952): *Textes arabes des Zaër. Transcription, traduction, notes*, Paris.

Marçais, Ph. (1911): *Textes arabes de Tanger. Transcription, traduction annotée, glossaire*, «Bibliothèque de l'École des Langues Orientales Vivantes», Paris.

— (1977): *Esquisse grammaticale de l'arabe maghrébin*, «Langues d'Amérique et d'Orient», Paris.

— (2001): *Parlers arabes du Fezzân. Textes, traductions et éléments de morphologie rassemblés et présentés par Dominique Caubet, Aubert Martin et Laurence Denooz*, «Bibliothèque de la Faculté de Philosophie et Lettres de l'Université de Liège», fasc. 281, Genève: Librairie Droz.

Moscoso, F. (2003): *El dialecto árabe de Chauen (N. de Marruecos). Estudio lingüístico y textos*, Cádiz: Universidad de Cádiz, Área de Estudios Árabes e Islámicos.

Ould Mohamed Baba, A.S. (2008): "Árabe *ḥassāniyya* de Mauritania", in F. Corriente & Á. Vicente, eds. (2008): *Manual de dialectología neoárabe.* «Instituto de Estudios Islámicos y del Oriente Próximo», Zaragoza, 310-351.

Owens, J. (1984): *A short reference grammar of Eastern Libyan Arabic*, Wiesbaden: Harrassowitz.

Procházka, S. (2002): *Die arabischen Dialekte der Çukurova (Südtürkei)*, «Semitica Viva» 27, Wiesbaden: Harrassowitz.

Singer, H.R. (1980): "Das Westarabische oder Maghrebinische", in W. Fischer & O. Jastrow (1980): *Handbuch der arabischen Dialekte*, Wiesbaden: Harrassowitz, 249-291.

— (1958a): "Grundzüge der Morphologie des arabischen Dialekts von Tetuan", *ZDMG* 108, 229-265.

— (1958b): "Neuarabische Texte im Dialekt der Stadt Tetuan", *ZDMG* 108, 106-125.

Vicente, Á. (2000): *El dialecto árabe de Anjra (norte de Marruecos). Estudio lingüístico y textos*, Zaragoza: Área de Estudios Árabes e Islámicos.

Voight, R. (1996): "Die Labiovelare im Marokkanisch-Arabischen", in *Romania Arabica. Festschrift für Reinhold Kontzi zum 70. Geburtstag.* Herausgegeben von Jens Lüdtke, Tübingen, 21-29.

Woidich, M. (2006): *Das Kairenisch-Arabische*, «Porta linguarum orientalium, neue Serie» 22, Wiesbaden: Harrassowitz.

WZKM: *Wiener Zeitschrift für die Kunde des Morgenlandes*.

ZDMG: *Zeitschrift der deutschen morgenländischen Gesellschaft*.

Juan Pedro Monferrer-Sala & Nader Al Jallad (eds.): The Arabic language across the ages.
Wiesbaden: Dr. Ludwig Reichert Verlag, 2010.
ISBN: 978-3-89500-765-1